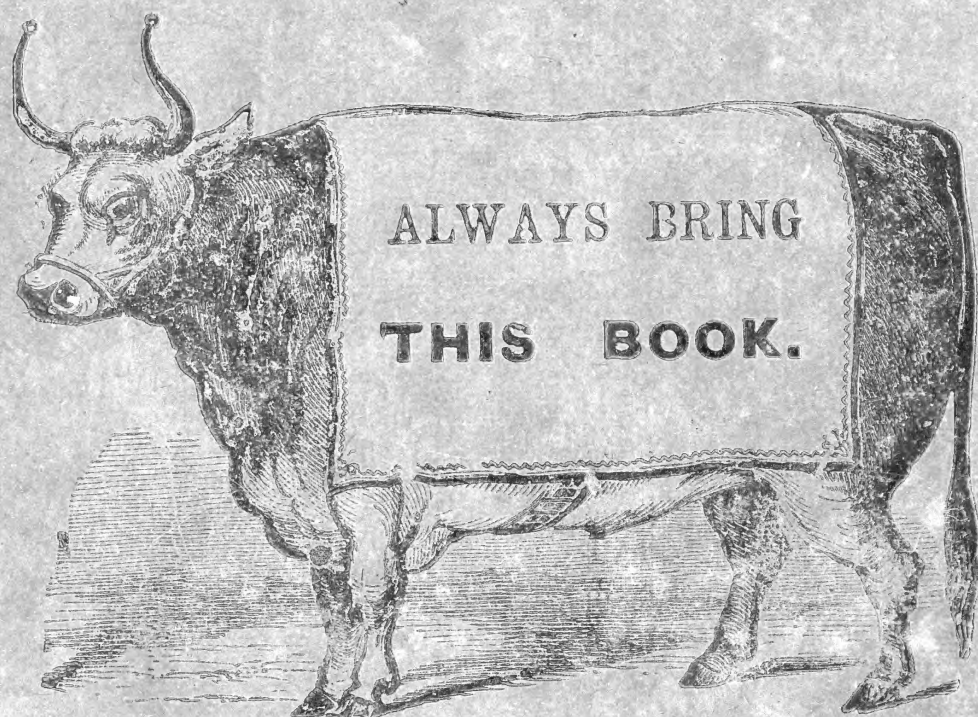


436-450

ALL BILLS SETTLED MONTHLY.



M

IN ACCOUNT WITH

PROVISIONS,

CONSTANTLY ON HAND

Beef, Pork, Mutton, Lamb, Poultry,
TRIPE, SAUSAGES, HAM,
LARD, PIGS' FEET, LIVER, &c.

Also, Fresh Fruit and Vegetables

Of all kinds in their season, at lowest cash prices

Goods delivered promptly, free of expense.

Nices, 2. disk on white thick, flat-
 top gen 6. Beams color. Both
 a case beam and leaf minor
 (see alaculbi specimen)
 color pale brownish, hd. 5th black
 also anal plate. Cases hatched
 on back of leaf and larva
 moves between 2 epidermis
 returning into case.

437

Little larva spun up among the
young leaves of willow. Thought
it a mine. But tubercles like
noctuid so kept it to see
tubercles minute blackish, normal
Red green with d, lat. and
s-s white line.

mol. Stopped spinning and was
marked like a noctuid with
enlarged 12. Hd faint below
shiny pale greenish. Red whitish
green white dotted. Broad d white
line narrow broken lat., then a
blackish shade. Super s. line whitish
below spiracle on 12 and onto anal
foot. Setae distinct brown, from center
of larger white dots. Hd 1.8 mm.

Entered ground June 18

note read from paper May 1 1895

Cat No. 11490

Taeniocampa

438

15 good? eggs of *Colaradia pandora* from
C. H. Wodey, Miles City, Montana.
Egg shaped, flattened on two sides
or a little concave, smooth shiny
of a pearly greenish white with a
round brown spot of small size in
the center of the larger end.

Size 2.4 x 2.0 x 1.2 mm (read June 12)

Hatched June 19, 1894 Hd higher than wide
rounded full shiny red brown
shading into blackish below
setae fine, not numerous; w. 1.0 mm
Body and spines black; an area
surrounding base of i on 5-11

salmon brown. A sd, lat and
s-s white line broken into dots.
A white line under anal plate
abd feet 7-10 salmon brown ex-
cept their leg plate which are
black. An ad-dorsal white dot
on 4. Spine and setae black

tubercles on 5-11 then. ④ a large shaft with conical base slightly tapering to truncate apex with 2 slight excrescences about the middle one below the other, but bearing nothing at apex a crown on 3 short then like spin and the long spinose seta arranged as pent of the crown ② ped. and a little below i, no shaft, simply a spinose seta from the skin; ③ like i but with a less distinct central excrescence, simply irregularly of smooth surface, the crown at summit being two point and the spinose seta. Sep bicanalate the first. are small, i and iii on int. annulus, ii on ped one. Spined rather small but very distinct (2 inch) ④⑤ a short shaft, bearing a spinose seta before tip, and at tip two points and another spinose seta (⑥ absent) ⑦ a short clear seta

no spinose in base of leg plate and ⑧ another found inside. On 5-6 same, ④⑤. ⑥ absent; below a short process bearing VII a ^(religum same as before) ~~and a~~ ^{tip, one at tip}, further in is VII c from a tubercle on skin and VIII near ventral line, likewise normal seta. On 12 a Y shaped process ① each with truncated with crown of 2-4 points and seta, ii seta only; iii, iv + v (⑥ absent the short shaft of VII a also absent) VII b and VIII single setae. On 13 VII b and VII a same, i as on 5-11, ② a long Y shaped shaft like i + on 12 ③ long shaft with crown and 1 seta the shaft shaft of i seta a little and to the + truncate ii. Anal plate with 4 marginal & one central seta to each half, leg plate with about 5 setae, no others seen on 13. On 3-4 ① truncate tip each with crown of 2-3 points and seta, ② same shorter, the

spinach-like; short process with 1
seta below and 1 to none. Above base
of leg short process 1 seta before apex,
1 at apex. Several simple setae on leg
Ch 2, a long process with short
punctuation 2 setae on cth. 2 setae
with no process on first edge, a
punctate process with 2 setae 1 on
edge cth, short stig process
2 setae, one before tip, another same
before base of leg.

(Ranched a little willow but died)

439

On young leaves of willow, spun up with
a loose web. one or several together
Sanothripa luteiviridis (?) Platylabus
June 12, 1894. Setae white, distinct
long, single normal for macro.
white. Body smooth, not shiny
subtranslucent green, yellowish
tinged especially on intersegmental
folds. Small round distinct
dark. Hd not shiny pale
greenish with testaceous tinge
and a few long hairs. Hd $1.8 \pm$
From June 16 - like Sanothripa &
white silk

Others on willow Keene Valley N.Y.
June 21, 1894 - On Populus balsamifera
just like Sanothripa was found
Sanothripa June 26 1894

439A

Sanothripa

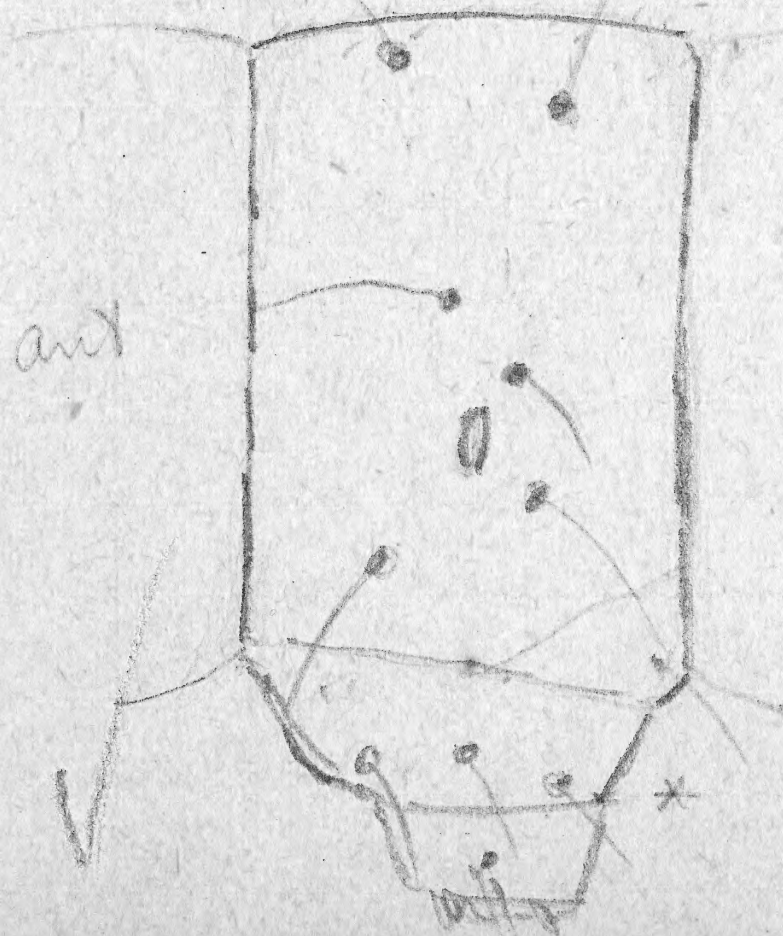
June 16 on willow & poplar Tuttle (N.Y.)
had 1 dark N.Y. Same but a quite
distinct white stig line & gemate whitish
small shade

440

Arizota eggs on Oak 5.4.44, found up
towards Anasle Chasen. Elliptical
flattened on two sides $1.7 \times 1.5 \times$
color dark red brown, when found.
Laid 15 together but well separated,
not touching on back of leaf.
Hatched June 17. 43 considerably higher
than wide, rounded, smooth
shiny black. Labrum pale. w. .7 mm
head all black, a long single process
on 3rd bearing two long setae
anal plate large, feet strong. Tubercles
represented by very short spines
which consist of a conical shiny
base bearing short seta, ① and
normal, single d. on 12, ③ present, ③ lat.
[i ant, ii post, 2d anted, iii lat; same
on 12, ii very small and post,
i not consolidated, i+ on 13 ant, ii
gone, iii present, iv & v two bristles
from single area S-S, vi absent,

vii on leg plate angle, viii inside leg.]
(Had no oak and they died)

442



(x These vary
from 2 to
4 on different
days of the
same larva)

Falcaria
bilineata

441 = 404

Platyphragma arcuatum (Figs. large larva)

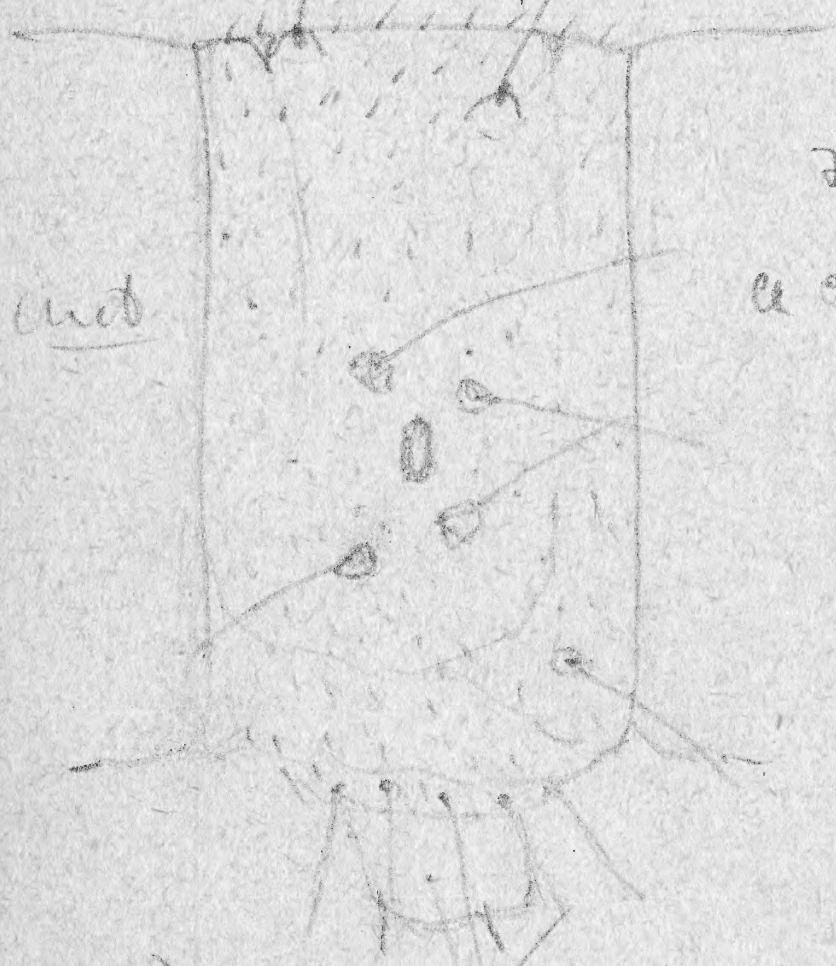
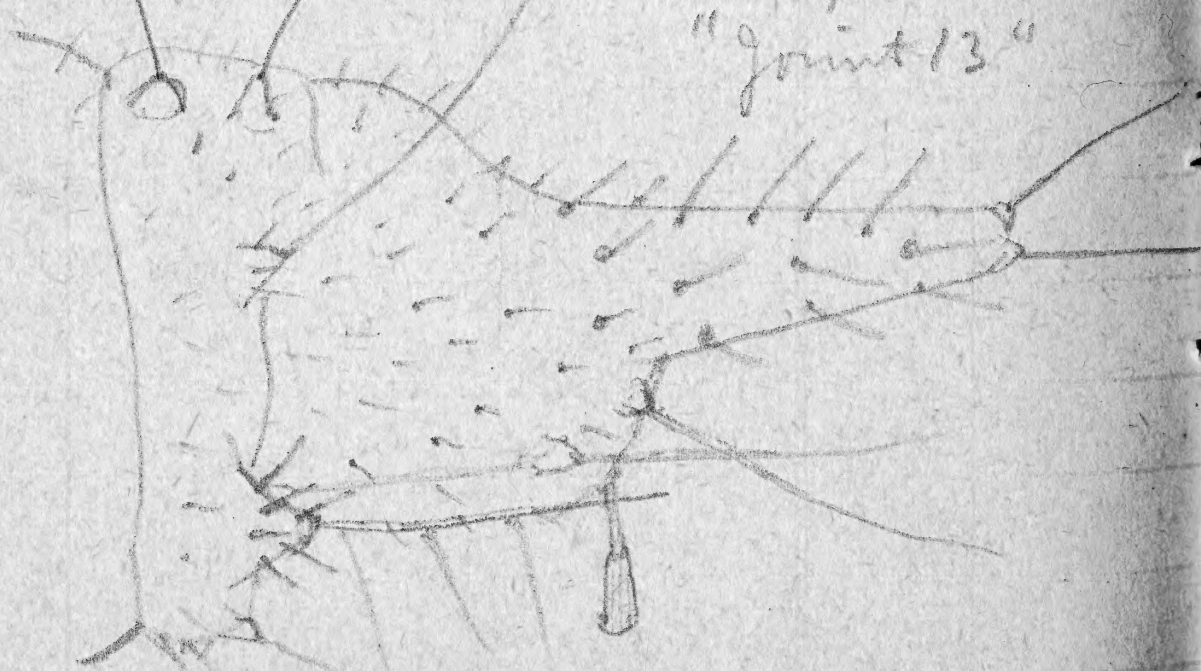


Fig. 1

a central segment

Suberula of large
Larva

Fig. 2
"Joint 13"



*11 also present on 5 and 6 but VII
present, 4 3 setae (1/2 in seg)

Calc. .3 .43 .62 1.26 1.8 10x, 70

under microscope pale, then largely
overlaid with salmon red, an
irregular asyrian blotches

Parsuata on white birch and Alder,
Keene Valley N.Y. June 17, 1894.

Egg. elliptical, flattened above &
below, a little concave, smooth,
shell colorless salmon pink .5 x .6 x .4

Laid singly or in two on upper side
of leaf. Under 1/2 inch obj. the surface
is faintly marked into raised hex-
agonal cells, with very minute short

staple. The round shiny brown black with
white hairs. w. .25 mm Body cylindrical
or incisions well marked. Setae

pale rather long with enlarged
tips, singly from small tubercle
normal i ii iii iv v (vi not seen, iv is
first seg, other normal x
first seg, v seg below, 2 v region

to base of seg seems clear) anal feet
absent a pair of short setae
anal pores on edge of plate
color purplish brown, 5 and 11
anal segments except a dark

width of the
body

sd line as 11. Some 2-d yellowish
mottling, especially on 8-10, defining
obscurely a 3-d line. 5-v region
and abd feet pale luteous.

Lower cat upper epidermis &
paracymbium under a tent of a
coarse silk webbing. Slightly
drawing the legs together.

Stage 5 Same tent but a little larger
and legs a little more drawn up

Hd same, a little notched behind
at vertex. ^{8 show faintly pale transverse bands} W. 4 mm \pm legs distinct,

faintly annulate, and plate with
an upturned bifid. Short anal
prong. Setae fine white, the chief
ones with conical bases. A number
of secondary ones especially on 8.

mostly shorter. Body velvety brown
black, dotted with yellow.

11 largely yellow, the tint prevailing
d. 7-9 with an orange brown
faint double dorsal line. The tent

black, anal absent. 26 yellow in
front & this color on 11 is divided by
a sd line as before

Stage hd. 6 Hd whitish brown with 3
transverse brown bands, bilobed
rather flattened before with many
pale setae. Body marked much as
before, but the 2-d brown line more
distinct showing faintly in the pale
yellow of joint 5. Setae distinct, pale
with enlarged conical bases. anal
prominence short, upcurved

Stage hd 1 mm \pm Hd yellowish white
with 3 trans black lines, scarcely bilobed
the lower one extends from ocelli, other 2
as in anal (404) marking intermediate
between fourth stage and next. Ground
color yellowish pale greenish, most
predominant on 5 all. a purple brown
sd band, below which centrally &
in dorsal space are same color al-
ternately checkered striae. Tubs. 1 joint

Setae pale distinct dark whitish. 700d whitish. 300d yellow.

An erasible blackish planed on 2
just above base of the foot

on 8-9. Traces of d. line and
black shaded ed. areas, especially
on 6-8, 10. Markings ill defined
and difficult to describe. Larva
rests on leaf near end on
upper side. Head & tail moder-
ately elevated. Eats whole leaf.
Stage II hd. 6 1/2 pale horn dotted
with darker with a transverse
pale line above middle, lobes
subventral pale with enlarged bases,
especially 8d pair on 3-4, quite
short. 13 with lateral ridge
and short upturned process on
anal plate. No anal feet. Body
varied with brown and white
& yellowish, the pale color predom-
inant on 2, 5, 8-9 and 11. Larva
rests on upper side of leaf near top
on a surface from which it has
eaten the upper epidermis & parenchyma.
A few threads spiracles on the 6th

3 (last) .6 1/2 hd, new hd 1.05
Sample { hd 1.05 new hd 1.5
C. univ. (hd 1.5) new hd 2.2 & same
of leaf, but no sign of a larva.
(hd. 1.6, new head 1.1 ±)
Stage III hd 3 1/2 hd round, notched from
behind at vertex, dorsal blackish
brown, setae very short, sparse with
characteristic tips, a short thick
process on end of anal plate
bearing 2 setae. ii very a hair
ii above a process ii below behind
i and below; no anal area, a small
black pig. plate. Body somewhat
humpy, segs. clearly 3-annulate
disrupting rather irregular. Color
brown, blotched with white, forming
distinct patches on 5, 8, 9 and 11.
Have lateral dots the whole length
and on the slight dorsal elevation
on 12 and on edge of anal plate.
Larva rests on its pink surface near top
of 4 in a string on the back of a
leaf near base of a leaf. Elliptical
lined above and below and darker

55
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000

May 5 1894
Cat. no 11017

midventral surface marked by faint
into irregular quadrangular area
by slight raised lattice reticulate
and the whole thickly covered
with small round regular pits like
a thin film, as many as 10 in each
area. Shell translucent like green
glass, iridescent, and disfigured
by pits at angles with film.
Ventrals 22 and 23 bilobed, the
lateral angles being by one pale
ventral with black dots which are
smaller than the dorsal, apical and
lateral ones; ocelli black, w. 6 mm.
Body composed by the rounded large
white ones. The tubercles, then appearing
as coarse granules, dark brown mottled
with white, which predominate on 2, 5
8, 9, 12 and 13. Area processiform, apical
setae short, a long granular one at ventral
and also from each side of III
and 4 or 5. 5-6 below V on 9 which is
double VI, 11 and 12 on 23.

443

Neotoma, Deane, N.Y. June 12 1894
100 feet below, green with about
25 white spots on each side, each of
which consists of a group of 2 or 3 cup-like
rounded dots. Labrum pale, ocelli white
with central black dot. Body yellow
on 2, 3, 4, and 5, and shiny, arched
thick, 13 with small, no horns
on 2, all covered with round
white dots, those representing the
tubercles a trace longer than the
dorsal ones each bearing its fine
seta. Segs. gently convex later
under lines. Setae normal per me-
dian tips of abd. feet pale,
femora pale with narrow
black lines. On 13 the feet are

144

next in line of legs from dentate
tubercle and in thin white
or lighter seg., (2 sides occ.); one or
legles seg., angle and inside of
foot. ^{Yellow} ~~2 pairs~~ ^{of} slugs and
~~constant~~ ^{marked} marks not
hard to see.
more than 1 seta from iv-v; but it is
much cut present independent of
H. bilobed apices below 2 with long
clippers, blackish, mouth pale
green brown, inner blade red, all
brown beneath light yellowish
setae distinct, glabrous with very
slight tubercles.

445

Spec. C. quadratus? laid by
 Sept 2, Philadelphia June 1894
 elongated, flattened on two sides
 smooth, light green not shining
 1.8 x 1.6 x 1.4 mm under $\frac{1}{2}$ in faintly
 irregular by rather close discar-
 ved depression, the whole faintly
 granular like ground glass.

Collected June 20 Sept. distinctly 8-annu-
 late no side ribs at plate, setae
 simple, no secondary ones, short
 straight, granular with ring.
 Light enlarged round tips: i and
 ii to line on annulets 3 and 6, iii
 super stig. on ann 4, one and the
 opposite on ann 2; 1 just below spiracle
 two in line on folds above base of
 leg, 1 on leg. and no inside vent
 some on higher segs. vii seen. X
 be rather widely separated along
 2 & foldings. (see over)

~~Anoda~~ Anoda a wilsoni July 4 same
Ad 1st. Anodacanthus Same
An apple & willow leaf with light green
July 12 1895 Stages 7-8
364 446 See also 80 second
Anoda and 99.
Little Acronycta? stages 1 & 2 a white
pink. Kew Valley June 19 1894
Setae large, dark, then less so
longer as to be nearly touching like
young Acronycta, minor, v. minor 3,
and more long on leg, resting prob. on
4, 5, 8, 9, 12 a round patch, all the
rest translucent whitish, eye
black, mouth brown, feet showing
green by transparency, Setae dark
W. l. d. .25 mm ± Punctures upper surface
of the mid anal plate dusky lateral
III process short i with 3 or 4 hairs, the
original seta is lost, it with only one
distinct hair, the other with about 3,
it as long as anal. It was present
on above leg with 3 hairs. I could
not find the leg plate no lateral
anterior with pale color, which
a brown shield at vertex, legs black
mouth brown. Bod. whitish, a

Colo. 33. 47 67 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99
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46 allied to A. tritor

(10) but the subcapitulum
of stamens on 8-11 arches
green not on 12-14
in all segments and
there is no distinct
reddish edging to
stamens.

across an willow

plantation. I can

not know space or

lighter and a little

as if I were attached to

run forward

also with Keene

fully by 79

little brownish spot, I, on white
with brown belly June 9 1894
Scales large, smooth, then scales so
large as to be nearly touching the
adjacent ones, arranged, in series,
and raised up in line, 1035, 1040, 1045, 1050, 1055, 1060, 1065, 1070, 1075, 1080, 1085, 1090, 1095, 1100, 1105, 1110, 1115, 1120, 1125, 1130, 1135, 1140, 1145, 1150, 1155, 1160, 1165, 1170, 1175, 1180, 1185, 1190, 1195, 1200, 1205, 1210, 1215, 1220, 1225, 1230, 1235, 1240, 1245, 1250, 1255, 1260, 1265, 1270, 1275, 1280, 1285, 1290, 1295, 1300, 1305, 1310, 1315, 1320, 1325, 1330, 1335, 1340, 1345, 1350, 1355, 1360, 1365, 1370, 1375, 1380, 1385, 1390, 1395, 1400, 1405, 1410, 1415, 1420, 1425, 1430, 1435, 1440, 1445, 1450, 1455, 1460, 1465, 1470, 1475, 1480, 1485, 1490, 1495, 1500, 1505, 1510, 1515, 1520, 1525, 1530, 1535, 1540, 1545, 1550, 1555, 1560, 1565, 1570, 1575, 1580, 1585, 1590, 1595, 1600, 1605, 1610, 1615, 1620, 1625, 1630, 1635, 1640, 1645, 1650, 1655, 1660, 1665, 1670, 1675, 1680, 1685, 1690, 1695, 1700, 1705, 1710, 1715, 1720, 1725, 1730, 1735, 1740, 1745, 1750, 1755, 1760, 1765, 1770, 1775, 1780, 1785, 1790, 1795, 1800, 1805, 1810, 1815, 1820, 1825, 1830, 1835, 1840, 1845, 1850, 1855, 1860, 1865, 1870, 1875, 1880, 1885, 1890, 1895, 1900, 1905, 1910, 1915, 1920, 1925, 1930, 1935, 1940, 1945, 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055, 2060, 2065, 2070, 2075, 2080, 2085, 2090, 2095, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2175, 2180, 2185, 2190, 2195, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2240, 2245, 2250, 2255, 2260, 2265, 2270, 2275, 2280, 2285, 2290, 2295, 2300, 2305, 2310, 2315, 2320, 2325, 2330, 2335, 2340, 2345, 2350, 2355, 2360, 2365, 2370, 2375, 2380, 2385, 2390, 2395, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2475, 2480, 2485, 2490, 2495, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2550, 2555, 2560, 2565, 2570, 2575, 2580, 2585, 2590, 2595, 2600, 2605, 2610, 2615, 2620, 2625, 2630, 2635, 2640, 2645, 2650, 2655, 2660, 2665, 2670, 2675, 2680, 2685, 2690, 2695, 2700, 2705, 2710, 2715, 2720, 2725, 2730, 2735, 2740, 2745, 2750, 2755, 2760, 2765, 2770, 2775, 2780, 2785, 2790, 2795, 2800, 2805, 2810, 2815, 2820, 2825, 2830, 2835, 2840, 2845, 2850, 2855, 2860, 2865, 2870, 2875, 2880, 2885, 2890, 2895, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 2940, 2945, 2950, 2955, 2960, 2965, 2970, 2975, 2980, 2985, 2990, 2995, 3000, 3005, 3010, 3015, 3020, 3025, 3030, 3035, 3040, 3045, 3050, 3055, 3060, 3065, 3070, 3075, 3080, 3085, 3090, 3095, 3100, 3105, 3110, 3115, 3120, 3125, 3130, 3135, 3140, 3145, 3150, 3155, 3160, 3165, 3170, 3175, 3180, 3185, 3190, 3195, 3200, 3205, 3210, 3215, 3220, 3225, 3230, 3235, 3240, 3245, 3250, 3255, 3260, 3265, 3270, 3275, 3280, 3285, 3290, 3295, 3300, 3305, 3310, 3315, 3320, 3325, 3330, 3335, 3340, 3345, 3350, 3355, 3360, 3365, 3370, 3375, 3380, 3385, 3390, 3395, 3400, 3405, 3410, 3415, 3420, 3425, 3430, 3435, 3440, 3445, 3450, 3455, 3460, 3465, 3470, 3475, 3480, 3485, 3490, 3495, 3500, 3505, 3510, 3515, 3520, 3525, 3530, 3535, 3540, 3545, 3550, 3555, 3560, 3565, 3570, 3575, 3580, 3585, 3590, 3595, 3600, 3605, 3610, 3615, 3620, 3625, 3630, 3635, 3640, 3645, 3650, 3655, 3660, 3665, 3670, 3675, 3680, 3685, 3690, 3695, 3700, 3705, 3710, 3715, 3720, 3725, 3730, 3735, 3740, 3745, 3750, 3755, 3760, 3765, 3770, 3775, 3780, 3785, 3790, 3795, 3800, 3805, 3810, 3815, 3820, 3825, 3830, 3835, 3840, 3845, 3850, 3855, 3860, 3865, 3870, 3875, 3880, 3885, 3890, 3895, 3900, 3905, 3910, 3915, 3920, 3925, 3930, 3935, 3940, 3945, 3950, 3955, 3960, 3965, 3970, 3975, 3980, 3985, 3990, 3995, 4000, 4005, 4010, 4015, 4020, 4025, 4030, 4035, 4040, 4045, 4050, 4055, 4060, 4065, 4070, 4075, 4080, 4085, 4090, 4095, 4100, 4105, 4110, 4115, 4120, 4125, 4130, 4135, 4140, 4145, 4150, 4155, 4160, 4165, 4170, 4175, 4180, 4185, 4190, 4195, 4200, 4205, 4210, 4215, 4220, 4225, 4230, 4235, 4240, 4245, 4250, 4255, 4260, 4265, 4270, 4275, 4280, 4285, 4290, 4295, 4300, 4305, 4310, 4315, 4320, 4325, 4330, 4335, 4340, 4345, 4350, 4355, 4360, 4365, 4370, 4375, 4380, 4385, 4390,

Calc. .45 .76 1.26 2.1 3.5 ratio .60
 5.00 2.00 1.3 2.1
 .8 1.4 3.2
 .5 4.8 = 16

Copied for
 Dr. Packard
 7-3-44

Notice to Xanthate in elum in fresh
 (from which leaf)
 among. H. before the 2 Copied again
 below el. elum. for 8-10-95
 brown lateral stripe to I-IV stage
 mella (black) w. 8.5 mm ± body
 cylindrical shiny green, a little
 dorsal red-brown band on 5; a con-
 siderable black process on 6
 red brown, the first dark largest
 a single brown band on 12
 bearing ① towards apex but all
 red brown with 5-7 spots more
 reddish 2-5 and 11, all 12 all red
 brown or 12 yellowish on the sides
 below all faint short dark spots
 perceptible by laminae. C-8th as
 in el. plate small, obscure dusky
 subapical, 11; 12 the post. below; 4 and 5-8,
 10 above dark grey, 11 4 setae on femur & leg
 On 6, 8 on femur & tibia, 11 not on it.

most fine as recorded 1.4 ± See III 6 g
 near S. process visible on 5, 6, 7

448

Egg in elum in hatching 2, 3 and 4 on inside with
 of head. yellowish thin shells July 15 1895
 rather bulge them hemispherical with flat
 base. and shiny whitish yellow. Dicha-
 um, height of umb. Retention small
 linear, rather elongate, irregular hexagonal
 much smaller than el. umbiliga when 1st
 is an almost smooth area surrounded a
 very slight prominence is all smooth.
 Hatched by 24 and seen in type. Both in end
 a minute, whitish spot very of the end 1st post.
 and 2nd blackish. 3rd spot on 6 etc. and 1st one
 is 4.6 x 0.8 mmish red, faint feet pale, 8 and a
 little enlarged d. below distinct, double.



large, feet & tubercles blackish
 at end, stage a slight
 d. prothoracic on 6 and 12
 marked with red; a red
 star on base of anal. for
 and also for singly on 5, 6 and 11. C-8th

448

Egg on elm in hatches of 2, 3 and 4 on under side
of leaf. Jefferson High lands July 15 1895.

Rather more than hemispherical with flat
top. Not shiny whitish yellow. Diam 1
mm, height .7 mm. Retention small,
linear, rather elongate, irregular hexagonal
much smaller toward micropyle when there
is an almost smooth area surrounding a
very slight prominence or all smooth.

Hatched July 24 and ran to tip of teeth at end
of crinoid. Pushed part over of the end. Hd. feet
and cth blackish. ad spots on 5 & 12 and some
on 4, 6 & 10 brownish red. Anal feet pale, 8 & 12 a
little enlarged. Saliv distinct, dark.

Calc. .45 .76 1.26 2.1 3.5 5.0 6.0
 5-10-16 1.3 2.1
 2 " BL 478 3 1.4 3.2
 .5 498=16 Copied for
 7-3-94

Heise bifurcate on stem in leaf
 (which from which leaf) again
 arising. H. bifurcate 2 Copied from
 below stem to top from 8-10-95
 brown lateral stripe to I-IV stage
 yellowish white w. 8-10 mm body
 confinement shiny green, a little
 dorsal red line on 5, on con-
 siderable. H. bifurcate on 6
 red line, the one side leaf
 a single low broad one on 12
 leaving, D towards leaf all
 red brown with sev spots more
 width 2-5 and 11, abd. 2-11 and
 Hump on 12 yellowish on the side
 setae all faint short dark red
 perceptibly glandular. C-8th
 at first small, obscure dusky
 setae, 1-11, 12 big post, below; 1 and 2-4,
 5-10 long, VII 4 setae on joint 12 big
 C-6, 1 on base of process, not on it

most fine 23 new 1.4 ± See 1116 for
 head S. process visible on 5 and
 12 highest on 6 all slight and
 topped with brown. Head in center
 of head, oblique dorsal yellow
 line faint. Head and base with
 yellowish 5-10. Head
 and all very slightly translucent
 and 11. No stage 12 all the
 groups appear slightly 12 stage
 lower compared with description
 of 1116, p. 10. (VII=3 setae on leaf)
 Stage I on back of middle near tip of
 leaf July 3, 1894. Setae normal, (VI about)



H. shiny blackish mottled
 a little at vertex, pale
 below, with narrow w. 5
 Body whitish with 5 near
 base, feet & tubercles blackish
 at end, stage a slight
 d. prominence on 6 and 12
 marked with red; a red
 star on 5 base of leaf for
 and on 5, 6 and 11. C-8th

Smalls April 1895

Smalls, Cat no 11483

Ontario: Nasutaria Zell
(Chamaed) 449

young under ground
spring a shift
white cocoon between
leaves of dirt

95

mouth large eating in the
leaves of blackberry. June 22, 95
A second larva found. Setae
and flattened winged furcate
setae, arising from cylindrical
granular stalks. i+ii, three bases
ground pointing; iii longer than head, single.
iv+vi, 5th. bases short; vi a little
past 1/2 of vii set on the base
which bears the slender leg. 3
setae in a d. Row along head
plate, setae and the old white
head slightly histiocytic from body

Superficially. Upper, behind, partly
by crura. One or two setae
beams, 4 or 5 in a fan shape con-
tained too on flattened sides with
decay. There is a little white, and
upper end is a point of view.
The slight white along the top
of the white case is more green

smaller than the first
to wit, about size of a
(see 951) May 13
1898

Small larva - in leaves, head
dark green. Larva on 24th set. Larva
on 24th day, bases (i+ii) of head
pointing about 10 setae on the single
i+ii, many minute setae from body
on body, red short, 5th. slightly short
in 5th sector, i+vi, with 2 large
setae and several smaller ones.
slightly like those of the
larva of the previous case in form with
a little hole in with a slight
to a walking point, a single seta
on 1st set. Setae 10+11; ii shorter
on a distinct tubercle just beyond
the 1st set. The bases of 3 large
setae with many smaller ones both
at the end of the tube. The setae
are black, same; pale white to green
in the 1st white band, base
of the small heads of heads seen. In
1st of 1st set. Hd 7+8. Larva on 2
larvae on June Cat nos 11009-12

14

450 = 20

Sent to Dr. Packard July 3 '94

Schizura nitida on Vitaceae spp. from
Mr. J. Doll, seed June 1894. Egg shells more
than hemispherical, flat on base, circled
with shallow, rounded hexagonal areas,
not distinctly defined and becoming
obscure and punctiform as micropyle
diam 8 um, height .6 Laid? in 4 together
on under side of leaf. Shell whitish.

Laid 4 on 2, 2nd setae on enlarged bases
on 5 a bump. Setae 1, single & dump: on
6-11 two dumps, 1 on each, getting smaller
gradually, as 2 a low single bump. No
higher than wide, the lobes distinct, pale
testaceous brown, body shiny and brown finely
mottled with yellow the color replaced by
clean yellow 5d on 3, 4, 6, 8 and 11 and
5v on 6, 8 and 9, feet dark. Setae base
rather large slightly annular brown
distinction tubercle. 1-v normal for
macro, (vi absent) some spinous on
lower part of body segment by plate.

.41 .63 .95 1.43 2.07 wt .66

4 7 1.0 1.6

Anal feet elevated setae pale slight enlarged
at tip. ~~Stage III~~ 1.0 ± Had small for body, bi-
lobed with a large tubercle at apex of each
lobe, rather flat before with several setae
pale brownish white shaded with brown
post, with a vertical brown band before
ocelli. to vertex of each lobe connected by
an angular cross band above and again
below near vertex; clypeus greenish, call
dark. Tubercles with enlarged bases
a slight bump on 5 & 12, bearing 1 very
apex. a pair of tubercles in place of ocelli.
Tubercles 1-v normal several on leg plate
all yellow except on side of 2 & 4 which are
dark, shining leaf green. A purple brown
d-band dotted with white extends 2-
anal feet, making a bridge in the center
of each seg. covering 1 on 5, but on 6 it is
bright yellow; the brown covers the whole
of 7 even the foot and sternum then
just half of 6 and a tiny patch on 5.
1 & 8 yellow; band covers 11 on 9 & 10 and
sternum foot on 10, rising up and out

also feet into 11; cover 1 on 11 and 12
very narrow on 13 and hence into
small feet. A faint white red band
stained with yellow, most distinct
8-9 and giving a somewhat oblique
yellowish mark on 11 reaching 12 and
green ground replaced posteriorly 5-6
by whitish streakings. The feet pale
setae pale with glandular tips.
Stage I. With June 23 Hd. 7. Butobid, with
lateral ad. apex of each lobe; red brown
with a rounded pale green patch on
each side of clypeus above, one on
side of each lobe and clypeus same
color. Ocelli dark, a few setae.
Red brown dorsal line with markings
of same color. Sides yellow dotted
along the lateral area covering the
whole of legs 5, 7, 10 and 12, rest of
the body pale yellowish, especially
on 9. 2 central abd feet & the
four pale; 1 with enlarged base

intended on 8 and 12 make
slight and distinct punctate
punctures which disappear in
stage V
forming slight prominences on 2, 5
and 12. Anal feet elevated. Brown
setae dusky with glandular tips
normal IV 5-6, V and VI 5-6
5-6 on leg plate. Punctures of setae covered
with June 24 (Hd. 9.5) rounded 1.6 as before
as before, but a brown line running up
from venter & all that is left of the
brown on back of lobes and the band
connecting the ventral line above &
darkened. Body as before, in color
the setae stiff, distinct (not gland-
ular). The green of the side is
considerably broken by whitish
streaks, 1 on 6 and 1 on 11 on 8 yellow.
As stage advances the d. band fades
and gradually the red white line
broken on 11 becomes more distinct
and its first part forms a distinct V.
mark on 11, very absent from the
with June 27 Hd. small, head before
rounded, higher than wide, white

and a larger one.

with faint light brown tinge, from each side
of base of Δ a line runs to center of each
lobe cut by a small spot of green ^{each side} Δ
appears apex of Δ and anterior boundary Δ
above. Band purple brown, scattered with
round dots of the ground color - a small
faint band behind cells. A very
light greenish on 5 and 12, less scanty
on 11. Otherwise smooth, tubercles
absent, since small dark, only vi and
les m. with tubercles, anal feet elevate
Body green, clean on sides of 7-8 with
a d. purple line but dissolved
into white which tapers and ends at
5. A white ed. shade 5-11, d. line
downward, broken on 11, the first part
combined from 11 to 12 and forming
yellow form a V mark supplemented by a
few dots on ⁹² 11. A distinct yellow patch
surrounds 1 m. 5-8 with a yellow dotted
dorsal shading, the spot 1 m. 8 separated
by a brown Y shaped mark (In dorsal view
of 5-8 run a line covered with dark
brown mottled with whitish) and the
brown broadly spreads a band from
apex of 5 back to anal feet. Bases
of feet around vi. waxy white, the area
indicated by a rather irregular brown
mark. Anal feet 5-sect. pleurae. Spiracles
pale brown. No feet tinged with blackish
(and cut by oblique line of the ground color)

